IMPACTS COMMON TO THE PROPOSED ACTION, ALTERNATIVES B, C, AND E

The following impacts are common to all alternatives except Alternative A (the no-action alternative) and are not repeated in the impact sections for individual alternatives.

IMPACTS ON NATURAL RESOURCES

Wildlife

Wildlife information was consulted during development of this plan in an attempt to avoid sensitive habitats. Impacts on wildlife were determined by studying locations of nests and considering habitat needs in relationship to the alternatives. Researchers and other resource experts were consulted.

Some displacement of wildlife could result from dispersal of visitation around the island, increase in visitor use of specific areas above present levels, and introduction of visitor use into previously unused areas (see wildlife discussion for each alternative). This impact would be minor and would affect a relatively small amount of the park. The survival of populations would not be threatened and available critical habitat would not be reduced. Smaller and less mobile wildlife would be affected more than larger animals that are able to move out of the areas of disturbance. The impact would last for the duration of the visitor use or the life of the facility.

Disturbance to soils and vegetation in the alternatives would have very little effect on the availability of habitat across the island. Most disturbance would be in previously disturbed areas that are relatively small and dispersed across the island and would be mitigated by revegetation where possible. Continued winter closure of the island would benefit wildlife by reducing human contact and interference.

In all alternatives, inventories would improve management of these resources. A better understanding of park resources would allow for better management and sustainability. Better data on reptiles, amphibians, insects, mollusks, and snails in a natural setting would have far-reaching benefits and would contribute to the park's role as a laboratory or benchmark for similar ecosystems.

Study of the wolf and moose relationship on Isle Royale has already produced significant results that have helped management of these species on the island and elsewhere. Because the benefits of research transcend the park boundary, convening a panel of subject matter experts if dramatic wolf population changes occur would involve those who would benefit substantially from continued research.

The Lake Superior fisheries are part of Isle Royale's significance and contribute to the experience of many park visitors. Development of a fisheries management plan would be beneficial to the management of those resources.

Threatened and Endangered Species

Data bases from the park, U.S. Fish and Wildlife Service, the state of Michigan, and current researchers have been consulted during development of all alternatives. During implementation of any action additional research would be conducted to identify appropriate mitigation measures. Specific area closures would continue to be used as necessary for protection of resources, primarily wildlife.

Additional inventory work and monitoring would benefit the management of these resources. Suitable habitat exists in the park for several threatened and endangered plant and animal species; research would verify their existence in the park and add to the knowledge needed for better management.

Designated Wilderness

There are several areas presently designated as potential wilderness additions under the 1976

Isle Royale wilderness legislation. These areas are to convert to designated wilderness after nonconforming uses are removed or lessened. Examples of potential wilderness additions include the area around the Amygdaloid ranger station, Fishermans Home, and Wright Island. Specific actions proposed in each alternative would affect the future ability to convert these areas to designated wilderness.

Water Quality

The removal and construction of docks, trails, campgrounds, and other facilities could increase turbidity somewhat in adjacent waters. This impact would be temporary and would be mitigated by site-specific containment measures such as silt fencing and retention ponds. All disturbed areas would be revegetated so that no long-term siltation impacts from runoff would occur. All action alternatives would allow park managers and others to better understand and manage water quality. Included are research into suspected threats, cooperative efforts with regional water quality ecosystem management and protection programs, and development of a water resources management plan.

IMPACTS ON CULTURAL RESOURCES

Archeological Resources

Inventories would improve the park's ability to manage archeological resources. All action alternatives would benefit shipwrecks as the result of partnerships formed to preserve and protect these resources.

The removal of trails would benefit archeological resources because less visitor use in these areas would reduce disturbance. This would be proportional to the amount of trail removed. The same positive effect would result from the removal of docks, because visitors would be less likely to come to these areas.

Historic Resources

Impacts have been assessed for historic resources that have been determined eligible for listing on the National Register of Historic Places and those resources on the park's List of Classified Structures. The list is an inventory of all historic and prehistoric structures with historical, architectural, or engineering significance in which the park has legal interest. Included are structures that meet the criteria of the National Register of Historic Places or are contributing elements of sites and districts that meet the national register criteria. The list assists park managers in planning, programming, and recording decisions about treatment for these resources. To determine impacts, park and other NPS cultural specialists and the Michigan State Historic Preservation Office were consulted.

Adaptive use in several alternatives would help preserve structures and other features. Development of campsites or addition of docks in these areas could impact cultural landscapes, depending on the location, size, and use levels.

Inventories would help the park staff to understand and better manage the resources.

IMPACTS ON VISITOR USE AND VISITOR EXPERIENCE

Scenic Quality

Scenic values relate to the visitors' perceptions of the park and its surroundings. Natural appearing conditions (such as undeveloped shoreline) are aesthetically pleasing. Impacts on scenic quality were determined by considering the number, nature, and scale of human developments that would interrupt the natural scene. Constructed facilities decrease the amount of undeveloped area and the sense of naturalness.

Proposed facility additions, such as campgrounds, lodging, and docks, would be designed to minimize visual intrusions. Facility design, colors, and size would be matched as closely as

possible to the surrounding natural features and would be hidden from view when possible.

Wilderness Experience/Noise

A reduction in overcrowding and noise levels would enhance the wilderness experience. Separation of uses would also enhance the wilderness experience for some users.

Restriction of aircraft landings to existing designated areas and prohibition of sightseeing aircraft and personal watercraft would prevent noise increases from these activities.

RANGE OF USES

The range of uses refers to the reasons that visitors come to the park and to visitor characteristics such as age, income level, or physical ability. The range accommodated varies somewhat in different alternatives. In alternatives that call for major changes in amounts or locations of facilities and services, these impacts would be the most significant.

Visitor Use Levels

In all action alternatives it is assumed that numbers of visitors will have to be managed or limited. This may mean that in the future some visitors may be unable to visit the island when they wish or might not be able to visit at all during the season.

Disabled visitors would encounter fewer barriers as changes were made over time to meet accessibility standards in developed areas and at campgrounds. Outreach programs would increase awareness of opportunities for the disabled at Isle Royale.

Safety

Visitor safety could be affected in some alternatives because emergency response time could vary according to number and location of docks and ranger stations and the general amount of ferry and motorboat access.

In alternatives that call for nonmotorized zones, boaters would not be prevented from taking shelter in those zones in the event of hazardous weather conditions or for other legitimate safety reasons.

IMPACTS ON PARK OPERATIONS

Partnerships for cultural resource protection and maintenance would be beneficial to park resources, but a workload increase would be associated with their establishment, management, and coordination.

Establishing limits for visitation growth would minimize long-term increases in maintenance and management workload associated with wear and tear on park facilities and resources.

CUMULATIVE IMPACTS

Cumulative impacts are impacts on the natural and cultural environments and human experience that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions that happen over a period of time.

The action alternatives reaffirm the NPS commitment to protect and manage natural resources. They propose programs and allocations of funds to support those programs that would enable the park to continue (or begin) resource inventories and monitoring. This would provide the park with information that would be very beneficial when working or cooperating with other entities in the Lake Superior basin to improve the overall quality of the environment, including the fishery. The concept of the park as a natural laboratory and benchmark would be enhanced and the resulting

data would be extremely valuable for research and studies conducted in the region and beyond.

If preservation of Passage Island, Menagerie Island, and Rock of Ages Lighthouses were to prove infeasible, their loss, when combined with loss of lighthouses throughout the Great Lakes region, could result in the disappearance a significant segment of Great Lakes maritime history.